

FANPASS

The Universal Fan Passport

A Blockchain-Powered Loyalty and Membership Platform for Sports, Esports, and Athlete Fandoms

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Introduction to Blockchain Final Project

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EXECUTIVE SUMMARY

FanPass is a blockchain based loyalty and membership app, that was built for sports clubs, esports teams, and even individual athletes. Users can earn their tokens and keep their permanent membership by going to games, buying merchandise, voting in polls, referring friends, and interacting with the team or the individual. Our membership is stored on the blockchain, so even if or when the club changes owners, platforms, or even shuts down the app, they still keep their tokens. Where conventional loyalty programs are revocable corporate entries, FanPass memberships are cryptographically scarce, transferable, and interoperable across clubs that adopt the network.

Our business is structured as a software-as-a-service (SaaS) platform sold to clubs, with a layered consumer experience that makes the blockchain mechanics behind email signup and custodial wallets. Revenue is generated through monthly subscription fees scaled to fan base size, marketplace fees for peer-to-peer transfers, one-time onboarding packages, and a white-label license for top-tier clients. The model is deliberately structured to avoid the regulatory complexity of public token sales, positioning memberships as access rights rather than securities. This paper details the market opportunity, the technical and contractual architecture, the explicit pricing and cost structure, the unit economics underlying profitability, and the competitive position relative to incumbents such as Socios/Chiliz, in-house club apps, and traditional CRM-based loyalty systems.

THE PROBLEM AND CURRENT MARKET

Fan loyalty in today's sports and entertainment industry is more valuable than ever, but also easier to lose. Teams and organizations invest huge amounts of money into building strong fan communities through branded apps, exclusive rewards, and special benefits for season ticket holders, all in an effort to keep supporters engaged and connected. Yet the underlying record of who is loyal, for how long, and with what intensity sits in private corporate databases that are subject to migration, deletion, and unilateral change. A fan who has held a season ticket for thirty years has, in most cases, no portable proof of that tenure beyond the goodwill of whoever currently owns the club's customer relationship management (CRM) system.

There are three major issues with how fan loyalty programs work in today's world. The first is that records of fans are not permanent. When the team someone supports changes ownership, switches software, or the club folds, the fans data can be erased or stuck in an old system. Secondly, the rewards that a fan owns in most cases can't be transferred. There is no option currently for fans to pass their points or tokens to a friend or family member. Third, exclusivity in the current loyalty programs is more of a marketing tactic than a real promise. This reduces its value and the meaning of being a founding member or a large supporter.

The consequence is that fans rent their loyalty rather than own it. The same supporter who would describe the club as "part of their family" walks away, after decades of expenditure, with no instrument they can hold, transfer, or verify. The market is enormous. Global sports sponsorship and licensing exceed \$200 billion annually, with esports and creator economies adding tens of billions more, but the infrastructure for representing the value fans bring to that market is, in 2026, still effectively analog.

PROPOSED SOLUTION

FanPass proposes a solution to the traditional loyalty programs issues by giving fans a digital token that they 100% own on a low fee blockchain. When a user joins the program through a club we have partnered with, they receive a token that collects data on how long they have been with the club, their rewards tier, their fan points, and their engagement. Depending on the particular clubs' rules, the token can be transferred to someone else or just be their own. On the side of records and collecting the data, FanPass uses smart contracts to enforce rules, which helps from manual entry that companies usually have to do. This helps with labeling someone a founding member and keeping these spots limited and stops membership history from being changed.

The user-facing experience is deliberately conventional. A fan signs up with an email address, downloads the FanPass mobile application or visits the club's white-labeled web app, and begins

earning points through ordinary fan behavior. There is no wallet to manage, no gas fee to pay, and no jargon presented to the user. Behind that surface, FanPass operates a custodial wallet on the fan's behalf via account abstraction, with the option for power users to migrate to self-custody when they so choose.

THE ROLE OF BLOCKCHAIN

To earn points with FanPass users can participate in activities like attending the clubs' games home or away, purchasing team merchandise, engaging with the club, and referring friends. The points they earn allow fans to progress through a rewards tier system: Bronze, Silver, Gold, and Platinum. Each tier offers rewards that increase per tier. They can start with early ticket access and can make their way to earning stadium recognition or lifetime VIP access. FanPass is different from other loyalty apps because the system is all based on smart contracts rather than the club, which makes sure there are no sneaky rule changes, and making sure that all regulations stay consistent.

A reasonable challenge to any blockchain-based product is whether the distributed ledger is genuinely central to the value proposition or merely a marketing veneer. FanPass takes the position that four specific properties, which cannot be replicated by a centralized database, however well-engineered, make blockchain the necessary substrate, not an optional one.

Permanence

A relational database, no matter how reliably backed up, exists at the discretion of its operator. When a club changes ownership, when a third-party vendor is replaced, or when a parent company dissolves, the data hosted in that database is at the new operator's mercy. With normal databases being changed or lost over time, FanPass uses a public blockchain which keeps the records permanently. For an example, a founding member token that was created today will still be there in forty years, even if FanPass, or the club dissolve. For engaged fans, this makes their experience feel more like they are owning part of the club, instead of just a nagging loyalty program.

Provable Scarcity

A founding-member tier only really matters if the limit is actually enforced. In most traditional systems, a club might promise that only the first one thousand fans will get a certain title or reward, but there is usually nothing stopping the organization from later increasing that number if they want to make more money. A smart contract with an immutable cap eliminates this discretion. The cryptographic guarantee that no more than N tokens of a given tier can ever exist transforms scarcity from a marketing claim into a verifiable property of the system itself.

Peer-to-Peer Transferability

Traditional loyalty programs usually treat earned status as something personal and non-transferable, meaning it stays tied to the individual account that earned it. Once points or tiers are assigned, they typically can't be moved, shared, or passed on to anyone else, even if the original user no longer needs them. Blockchain tokens, by contrast, are inherently transferable; the system can permit a fan who is moving abroad to gift a Gold-tier membership to a sibling, or allow an aging supporter to bequeath their tenure to a younger family member. The choice of whether to allow transfers and under what conditions, including cooldown periods or transfer fees to discourage speculation, is set by the smart contract at issuance and cannot be circumvented by either party.

Cross-Club Interoperability

The most ambitious and longest-horizon benefit of blockchain underpinning is the prospect of a universal fan passport. A fan who supports a Premier League club, a national team, and a college program in the United States today maintains three separate accounts in three unrelated systems. On-chain identity allows FanPass to surface a unified view of the fan's loyalty across every club on the network, opening the door to cross-promotional benefits, league-wide tier recognition, and an eventual second-order economy of fan-to-fan engagement that no single club's database could host.

These four properties are inseparable from blockchain technology. A central database is useful because it's fast, convenient, and makes it easier to add new features over time, but it doesn't really provide things like permanent records, true digital scarcity, or easy transfer and use across different platforms. FanPass uses blockchain as the foundation instead of just an extra layer because it's the only way to reliably support those kinds of guarantees in a modern fan loyalty system.

USE CASES

The same primitive, permanent, transferable, programmable membership token adapts naturally across every category of fandom. Three primary use cases are envisioned for the initial product rollout, with secondary applications expected to emerge as the network matures.

Sports Clubs

Professional and minor-league teams across soccer, basketball, baseball, and hockey constitute the primary commercial market. Within this category, season-ticket holders, away-day regulars, and lifelong supporters are the demographic best served by a permanent and verifiable record of tenure. Minor-league soccer franchises and college athletic programs are particularly attractive entry points: they have the engaged-fan demand of a major league but lack the in-house technical resources to build a comparable system independently. A minor-league soccer club with twenty thousand season-ticket holders is, in many ways, an ideal anchor partner large enough to demonstrate meaningful engagement metrics, small enough that an integration project is achievable within a single off-season.

Esports Organizations

Esports tournament series and franchise teams represent a structurally different but equally valuable market. A persistent fan-side identity that survives team rebrands is a meaningful product improvement for the industry. Fans today seek a digital first system and are comfortable and knowledgeable about using crypto and wallets. A lot of people show support online through apps like Instagram, Facebook, etc. They also show support watching streams, and following tournaments, so points fit into an esports reward system. With that esports teams and leagues are constantly changing their rosters and changing locations, so it makes it hard for a normal loyalty system to work. It's hard to buy an esports jersey that is tied to a player because in two days he could be with a new org. A persistent fan side app that survives rebrands and roster changes is a huge improvement for the industry.

Athletes and Creators

The third category we have is independent athletes and creators who have direct relationships with their fans, has grown a lot since the 2021 NCAA Name, Image, and Likeness changes and the rise of creator platforms. College athletes in the NIL era, fighters in combat sports, tennis

players, and individual creators with large online followings all now face the same basic challenge of building and keeping a fan base without depending on a larger league, team, or organization to support them. A FanPass for an individual athlete becomes the durable record of who supported them when, with the practical consequence that early supporters can be recognized and rewarded as the athlete's career progresses.

KEY ACTIVITIES

The operational priorities for FanPass during its early years are concentrated in four areas: engineering and code maintenance, product and user-experience design, sales and customer success, and capital strategy. Each is described below.

Engineering and Smart Contract Maintenance

Engineering effort is divided between the on-chain layer (smart contracts written in Solidity, deployed to Polygon and Base, audited by a third-party security firm prior to each significant version) and the off-chain layer (mobile applications for iOS and Android, the club-facing analytics dashboard, and the API layer that mediates between the two). A dedicated security review cadence, quarterly internal audits, and an annual external audit are treated as a non-negotiable operating cost rather than a discretionary line item.

Product and User Experience Design

The product team's overriding mandate is to keep the consumer experience indistinguishable from a high-quality conventional loyalty application. Account abstraction, custodial wallet management, and gasless transactions are all employed in service of this goal. The club-facing dashboard is treated as a separate but equally important surface, with engagement metrics, tier-mix visualization, and redemption flow analytics designed for the marketing and supporter-services personnel who will be the daily users on the club side.

Customer Acquisition and Customer Success

Sales is structured as enterprise B2B with a small, specialized field team. The first hires after the founding cohort are expected to be a head of partnerships with sports-industry experience and a customer success manager assigned to the anchor partner. As the customer base grows past ten clients, the customer success function scales linearly with the account base; sales scales sub linearly because each new case study disproportionately accelerates subsequent deals.

Capital Strategy

Capital strategy is treated as a continuous activity rather than an episodic one, with the founding team maintaining ongoing dialogue with potential investors well in advance of formal raises. The funding plan is detailed in a later section.

IMPLEMENTATION AND TIMELINE

Implementation is structured around an anchor-partner model rather than a horizontal launch. The first six months following seed funding are devoted to engineering the core smart contract suite, the fan-facing mobile applications, and the club-facing dashboard, with one anchor partner already contractually committed and integrated by month four. The objective of the first six months is not breadth but credibility: a single, well-instrumented deployment whose engagement and retention data become the basis for every subsequent sale.

Months six through twelve are devoted to operating the anchor deployment through a full competitive season, gathering longitudinal engagement data, and publishing a case study of sufficient quantitative weight to make subsequent sales substantially easier. Year two opens with a horizontal expansion: five to ten clubs across multiple sports verticals, layered with athlete-management partnerships and selective esports organization deployments. Year three and beyond is the period in which cross-club interoperability, the universal fan passport in the title of this paper, becomes a tangible product feature, contingent on enough clubs being on-network to make a unified fan identity meaningful.

Regulatory-friendly international jurisdictions are expected to serve as early secondary markets. The European Union's Markets in Crypto-Assets (MiCA) framework, fully in force as of 2025, provides clearer guidance for the kind of utility-token activity FanPass conducts than several individual U.S. state regimes.

TECHNOLOGY AND SYSTEM ARCHITECTURE

FanPass is built in layers, where each layer handles complexity, so the one above it doesn't have to deal with it. At the base is the blockchain, followed by the smart contract layer, then an API layer, then the application layer, and finally the end-user interface that fans actually interact with.

The blockchain layer uses a low-fee Ethereum Layer-2 Polygon, and Base are the two finalist candidates chosen specifically because micro-transactions remain economically viable at sub-cent gas costs. Recording a single attendance check-in on the Ethereum main net would cost more than the value of the points awarded; on Polygon or Base, the same transaction costs a small fraction of a cent and is settled within seconds. The choice of L2 is a pragmatic engineering decision rather than an ideological one, and the smart contract suite is intentionally written to be portable across EVM-compatible chains as the L2 market matures.

The smart contract layer encodes tier upgrade logic, the founding-member cap, transfer rules, and cooldown windows, and the role-based access control that allows clubs to award points without holding administrative custody of fans' tokens. An ERC-721-style token represents the fan's membership; a separate points contract tracks the running balance that drives tier promotions. The two are linked at the contract level, so a transfer of the membership token also transfers accumulated points.

The API layer mediates between the club's existing systems, ticketing, merchandise, CRM, and the on-chain contracts. From the club's perspective, FanPass is integrated through a standard REST API and webhook system: a tap-in event from the ticketing gate triggers a point-award call; a merchandise purchase from the official store triggers another. The API layer is also the home of account abstraction logic, which allows a fan to sign up with an email and never see a wallet address.

The application layer is split into the fan-facing mobile applications (native iOS and Android, with a progressive web app for fans on uncommon devices) and the club-facing dashboard. Both are connected through the API layer, neither talks directly to the blockchain, and both are designed so that a fan or a club operator can use the product without ever encountering blockchain terminology unless they specifically ask for it.

SMART CONTRACT

Below is a simplified version of the FanPass membership contract to show the main data structures and how points and transfer's work. In the full production version, there's more built in, like standard ERC-721 metadata, role-based permissions using OpenZeppelin, adjustable tier thresholds, rules for transfer cooldowns, and an upgrade system that allows bug fixes without affecting existing memberships or breaking anything already issued.

```
// SPDX-License-Identifier: MIT
pragma solidity ^0.8.20;

contract FanPass {
    enum Tier { BRONZE, SILVER, GOLD, PLATINUM }

    struct Member {
        uint256 points;
        Tier tier;
        uint256 joinedAt;
        bool foundingMember;
    }

    mapping(address => Member) public members;
    uint256 public foundingCap; // immutable scarcity
    uint256 public foundingMinted;

    modifier onlyClub() { /* role-based access control */ _; }

    function awardPoints(address fan, uint256 pts) external onlyClub {
        members[fan].points += pts;
        _maybeUpgradeTier(fan);
    }

    function transfer(address to) external {
        require(members[msg.sender].joinedAt > 0, "no membership");
        members[to] = members[msg.sender];
        delete members[msg.sender];
    }

    function _maybeUpgradeTier(address fan) internal {
        uint256 pts = members[fan].points;
        if (pts >= 10000) members[fan].tier = Tier.PLATINUM;
        else if (pts >= 5000) members[fan].tier = Tier.GOLD;
        else if (pts >= 1000) members[fan].tier = Tier.SILVER;
        else members[fan].tier = Tier.BRONZE;
    }
}
```

Three design choices are worth highlighting. First, point-award authority is restricted to addresses that hold the only Club role; an arbitrary external account cannot inflate a fan's points balance. Second, the founding cap is a state variable initialized at deployment and never mutated thereafter. The cryptographic scarcity guarantee discussed earlier is enforced here. Third, transfer is implemented as a peer-to-peer operation that moves the entire membership state atomically,

including tier and tenure, so that a Gold member who transfers does so as a Gold member rather than as a points balance that the recipient must re-accumulate.

TARGET MARKETS

FanPass is offered to clubs, leagues, and athlete management organizations as the paying customers, while individual fans are the ones who actually use the platform. These two groups are looked at separately because the way you sell to each one, and the value they get from it, is quite different.

B2B: Who Pays

The primary commercial customers are professional and minor-league sports franchises seeking deeper engagement with their existing supporter base, particularly those competing for fan attention against larger franchises in the same metropolitan market. Esports organizations with digital-native fanbases form the second category. The third is athlete-management firms, both NIL-era college representation agencies and combat-sports management, that are constructing direct-to-fan loyalty channels for individual clients. Within each category, the buying decision is typically made by a chief marketing officer or a head of supporter services, sometimes with input from a chief revenue officer when the conversation extends to alternative revenue streams beyond ticketing.

B2C: Who Uses

The fan-side target for the immediate goal is both the season-ticket holders and regular away-day attendees whose engagement levels are at least sufficient in order to have a real-world purpose to the full Benefit Ladder, as well as those with enough loyalty to the club so that a multi-year tenure record is an accurate measure of their dedication. Fans that support a club through geographic distance (i.e. diaspora supporters), especially when they are digitally engaged exclusively or predominantly, represent another large segment and can be well-suited to a digital native loyalty platform. When cross-club interoperability is active, then fans that support one Premier League Club, one national team, and one lower-level league club (all at the same time) will represent the most strategic group. Additionally, Younger Audiences who were raised on the expectation of modern application user experience from all other software applications are also the first to migrate to early adoption.

THE SPORTS AND FANDOM INDUSTRY BY THE NUMBERS

The market opportunity for FanPass is substantial across all three target verticals. The figures below provide a sense of scale; sources are listed in the references section.

Segment	Estimated Annual Value (Global)
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Global sports market (broadcast, sponsorship, merchandise, ticketing)	Approximately \$600 billion in 2024, projected to exceed \$700 billion by 2027 (Research and Markets)
Sports sponsorship spending	Approximately \$90 billion globally, \$30 billion in North America (PwC, Deloitte)
Global esports market	Approximately \$4.3 billion in revenue with over 640 million viewers worldwide (Newzoo, 2024)
U.S. NIL market for college athletes	Estimated \$1.7 billion in 2024–25 academic year (On3, Opendorse)
Loyalty management software market	Approximately \$11 billion in 2024, growing at 17% CAGR (MarketsandMarkets)
U.S. season-ticket holder population (top 5 leagues)	An estimated 8–12 million unique holders across the NFL, NBA, MLB, NHL, MLS

Several key points about this data should be noted. While the total value of the sports sponsorship market exceeds the total value of all the revenues from all the cryptocurrency exchanges in the world, it also indicates that capturing even a few percent of fan engagement dollars could create a significant business opportunity. The Esports industry is less large in actual dollar amounts but has a structural advantage of being much newer and expanding much faster than the traditional sport space. In addition, the loyalty management software area is increasing in size rapidly (in excess of 100%) and is open to new ways of creating differentiating technologies that can add-on or replace parts of an existing Customer Relationship Management (CRM) stack as opposed to replacing the entire CRM stack.

The Deloitte 2024 study on "immersive sports fandom" listed in the references is particularly relevant. Deloitte's research indicates that 60% of sports fans aged 18–34 report dissatisfaction with the digital experiences offered by their primary clubs, and 40% express specific interest in "owning a piece" of their fandom in a verifiable way. This is the demographic and the demand FanPass is designed to capture.

DISTRIBUTION CHANNEL AND GO-TO-MARKET

FanPass follows an anchor-prove-expand-universalize sequence rather than a horizontal launch strategy. The reasoning is straightforward: in enterprise sports technology sales, the credibility of a single well-instrumented case study is worth more than ten in-progress pilots, because chief marketing officers buy substantially on the strength of peer adoption.

Phase 1 (zero - 6 months), is anchor acquisition. Anchor will be a single minor league soccer team or mid tier esports organization. The reason I chose a minor league soccer team or mid tier esports organization is because it has a large enough fan base to allow us to gather significant engagement metrics. However, it is still small enough that we can complete an integration project during their off season. This allows us to have a relationship with them while they are working through some of the issues that arise when transitioning to our platform. We offer this partnership opportunity to them at a very low cost compared to what they would normally pay. In addition, by offering this partnership opportunity to them at a low cost, we receive all the necessary information needed to develop a case study of how our product was used by the team and their fans.

We then take the information obtained from the case study, and use this information to help us develop and grow additional relationships with other teams. For example, if the case study provides a positive return on investment for the team, we will now have credible evidence of the effectiveness of our product. This now gives us leverage to go out and pursue other opportunities.

In year two, we will expand into the remaining 5-10 teams across various sports verticals. We will also establish partnerships with athletes who participate in name-image-likeness (NIL) and combat-sport organizations. At the same time, we will formalize the sales process for our company. We will add a head of partnerships position, and build-out a customer-success organization to support each and every partner we have established. Finally, we will create a marketing organization to promote the case studies that were developed in years 0 & 1. These case studies will be designed so that once completed, we will be able to replicate them year after year.

Phase four (year three and beyond) is the universal fan passport. With sufficient clubs on the network, cross-club interoperability becomes a tangible product feature rather than a long-horizon promise. International markets initially open in MiCA-compliant European jurisdictions in parallel. The end-state vision is a single fan identity that travels across every club, league, and creator that the supporter cares about.

REVENUE STREAMS AND PRICING MODEL

The company generates revenue through four different segments of its customer base. The pricing structure is built on Enterprise SaaS Economics as opposed to Token Sales and/or Revenue Share agreements. This strategy allows the company to reduce potential Regulatory Exposure and Complexity for future customers.

Stream 1: Club Subscriptions (Primary, Recurring)

The main source of revenue is a monthly subscription paid by the club, which varies based on how large their active fan base is and which feature package they choose. There are three standard pricing tiers, with custom enterprise pricing available for larger organizations that need more than what the top Pro tier offers.

Tier	Target Customer	Monthly Fee	Included
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Starter	Minor-league clubs, esports orgs, athletes (under 50,000 active fans)	\$2,500 / month	Core platform, 3 tiers, basic dashboard, email support
Pro	Mid-size clubs (50,000–500,000 active fans)	\$10,000 / month	All Starter features plus 4 tiers, API access, custom branding, dedicated CSM
Enterprise	Top-tier clubs and leagues (500,000+ fans)	\$35,000+ / month	All Pro features plus white-label app, custom smart contracts, on-prem dashboard option, 24/7 support

The three levels are priced relative to how much similar types of business/enterprise software and technology pricing have been established over time: typical CRM & fan engagement vendors currently price their services to clubs of comparable size from \$5,000-\$50,000 monthly; this puts FanPass at competitive pricing without undervaluing it. Pricing also takes into consideration that FanPass costs very little to support another fan within the same club where a membership exists; therefore, when a club expands its fan base, FanPass will increase its revenue based on subscription sales at a much higher percentage than the cost.

Stream 2: Secondary Market Transaction Fee (variable/recurring)

FanPass will take a 2.5% transaction fee each time a fan transfers ownership of a membership to another fan using the secondary marketplace operated by FanPass. This fee can be paid in either fiat currency or stablecoins. A 2.5% fee is lower than what most secondary ticketing platforms charge buyers/sellers. FanPass has designed the fee as a transaction cost and not as an extraction of value from the market. To ensure that the marketplace does not become a speculative platform, FanPass has embedded anti-flipping cooldowns and transfer limits per fan in the smart contracts. In the first several years, the volume of secondary marketplace transactions will likely be low compared to other forms of revenue such as subscription-based revenues but will grow in proportion to the number of members who hold FanPass memberships.

Stream 3: One Time Onboarding Package (one time)

All new club deployments include an initial onboarding package that includes a variety of items including, but limited to, the deployment of the smart contracts and their configuration, the integration of the ticketing and merchandise systems, designing of benefits for the client’s custom-tiers, creating of marketing materials, planning and coordinating a launch event for the first group of fans. The total cost of these items varies depending upon whether the client purchases a Starter Tier or an Enterprise Tier with prices ranging from \$10,000 to \$75,000 respectively. The onboarding fees serve multiple purposes. First they help offset the costs

associated with all of the engineering and account management efforts required during the first 60 days after the deployment. Second, they act as a filter for those clients who want to use FanPass and make sure there is sufficient financial investment by both parties for a successful deployment.

Stream 4: White-Label License (Annual)

The largest clients, those with brand power sufficient to justify operating a fully white-labeled fan platform under their own name, pay an annual white-label license starting at \$500,000 per year, in addition to the underlying Enterprise subscription. This stream is expected to address only a small number of accounts (perhaps three to ten globally at full scale) but represents disproportionate revenue per account and serves as an important validation of the technology stack's operational maturity.

COST STRUCTURE

Profitability analysis requires a clear-eyed view of the cost side of the business model. FanPass operates with cost categories typical of an enterprise SaaS business, with two blockchain-specific additions: gas and infrastructure costs that scale with on-chain activity, and security audit costs that are higher and more frequent than for an equivalent off-chain product. The estimates below describe steady-state operating costs in years two and three; year-one costs are dominated by engineering build-out and are addressed in the funding section.

Cost Category	Annual (Year 2–3)	Notes
Engineering personnel	\$2,400,000	8–10 engineers (smart contract, mobile, backend, DevOps) at fully-loaded \$240K average
Sales and customer success	\$900,000	3 partnerships hires, 2 customer success managers at \$180K average loaded
Marketing	\$400,000	Content, case-study production, conference presence, paid marketing
Cloud infrastructure	\$180,000	AWS or GCP for API, dashboard, and mobile back end. Scales sublinearly.
On-chain gas costs	\$60,000–\$120,000	Sponsored gas for fans on Polygon/Base. ~\$0.005 per transaction at L2 rates

Security audits	\$200,000	Annual external audit plus quarterly internal reviews. Non-negotiable.
Legal and compliance	\$300,000	Securities counsel, jurisdiction-by-jurisdiction review, contract templates
General and administrative	\$350,000	Finance, HR, office, software tooling, insurance
Total operating cost	~\$4.8 million	Steady-state, years 2–3

Two cost dynamics deserve particular attention. First, on-chain gas is genuinely a small fraction of the total cost. At Polygon or Base L2 rates of approximately half a cent per typical transaction, even a deployment with a million fans each generating a hundred on-chain events per year produces gas costs in the low hundreds of thousands of dollars annually. This is materially smaller than the cost of cloud infrastructure for a comparably-sized centralized application, which is one of the underappreciated economic features of the L2 ecosystem in 2026. Second, security-audit cost is structurally higher than for off-chain products. Smart contract bugs are typically irreversible once exploited, so the audit cadence and depth must be substantially more rigorous than would be appropriate for a conventional SaaS product. This cost is not optimizable in the way that cloud infrastructure or marketing spend is; it is a fixed feature of operating in the on-chain environment.

PROFIT ANALYSIS AND UNIT ECONOMICS

Based upon the costs shown above and the pricing strategy outlined in the prior section, we can estimate with reasonable accuracy how long it will take us to become profitable.

The unit economics support this: Each Pro-tier club at \$10,000/month produces \$120,000 in ARR at an incremental cost of approximately \$1,250/month (less than \$15,000/year), which translates into a gross margin of better than 85% (based on our estimates).

Onboarding revenue adds additional dollars onto subscription revenue; however, we view all of the onboarding revenue as being used up primarily to fund the engineering and account management efforts required to complete the onboarding process. Therefore, we treat all of the onboarding revenue as being essentially breakeven from a unit perspective.

Our largest uncertainty in the model lies with Customer Acquisition Cost. We initially estimate that our CAC may lie somewhere in the range of \$20,000 to \$40,000 per Pro-tier client based on historical data from other comparable enterprise sports technology companies. At \$120,000 in first-year ARR, we believe our implied payback period would be well less than 12 months. Additionally, based on historical data from similar types of companies, we assume LTV > CAC at some point. Enterprise tier clients will likely require much larger upfront sales efforts to acquire (potentially greater than \$100,000) but they will also generate significantly more revenue (\$420,000 in ARR at entry rates plus white-label license fees at higher levels).

We expect to reach break even once we achieve around 50 Pro-tier equivalent clients across both tiers. In order to project out what we believe is a reasonable distribution of these 50 clients at break even (i.e., 40 Pro-tier, 5 Enterprise and 30 Starters) we projected the following:

- * Our average Pro-tier client will produce approximately \$120,000 in ARR (40 * \$120k = \$4.8m)
- * Our average Enterprise client will produce approximately \$422,000 in ARR (5 * \$422k = \$2.1m) plus onboarding and white-label fees.
- * Our average starter tier client will produce approximately \$9,500 in ARR (30 * \$9.5k = \$285k)

Therefore, our total ARR will be approximately \$7.8 million and our total cost will be approximately \$4.8 million. As such, we anticipate achieving a gross profit of approximately \$3 million in Year Three provided we meet our adoption projections, particularly since we anticipate that we will often receive multiple follow-on clients from the same vertical after having closed one "anchor" deal.

Metric	Year 1	Year 2	Year 3	Year 4
Active clubs	1	12	45	100
ARR	\$0.1M	\$1.6M	\$7.5M	\$18M
Operating costs	\$1.8M	\$3.5M	\$4.8M	\$7.5M
Net cash flow	(\$1.7M)	(\$1.9M)	\$2.7M	\$10.5M

The above projections are illustrative rather than committed; they reflect a base-case adoption curve that we believe is defensible based on comparable enterprise SaaS adoption in the sports-technology space. Sensitivity to the year-three client count is high: at 30 clubs rather than 45, the company is approximately break-even; at 60 clubs, it generates close to \$5 million in annual cash flow. The funding strategy described later is sized to accommodate the downside case in which the curve is twelve months slower than projected.

FUNDING STRATEGY

FanPass anticipates a phased capital strategy with three rounds of priced equity financing before a strategic exit. Initial capitalization is provided through a friends-and-family round of approximately \$250,000, sufficient to extend the founder's runway through the prototyping phase and the recruitment of the anchor partner. The seed round, targeted at \$3 to \$4 million, follows shortly after the anchor partner is contractually committed; the round is sized to provide approximately 24 months of runway through the anchor deployment and into the early phase of horizontal expansion. Series A, expected in year three at approximately \$12 to \$20 million, funds

the scale-out across multiple sports verticals and the buildout of the customer-success organization.

Series A is the round at which the path to either a strategic exit or continued growth becomes substantially clearer. A natural acquirer set includes Fanatics, DraftKings, Genius Sports, Sportradar, and the technology arms of major leagues themselves; a strategic acquisition at a multiple of revenue typical of high-growth sports-technology companies is the base-case exit scenario. The alternative, a Series B or beyond, followed by an eventual public-market exit, is feasible but contingent on a substantially larger scale than is targeted in the four-year plan.

Convertible-note instruments are preferred for both the friends-and-family and the seed-round structures, with priced equity at the Series A. This sequence is conventional for early-stage software startups and reflects the relative difficulty of reaching valuation consensus before the anchor case study is published.

COMPETITION

FanPass operates in a competitive space that includes several different types of existing solutions. Each category is outlined below, along with the key limitations that FanPass is designed to solve.

Socios and Chiliz

The Manchester United app (and others like it) are in some ways similar to Socios. Both offer users the ability to earn rewards based on how often you use the app. They both allow you to buy merchandise. They both offer tickets for sale. But there are also big differences. Socios uses Chiliz's blockchain. This means that Socios users can trade their tokens on third-party exchanges. So when Socios launched its first token (PSG) it was trading for about \$20 per token. In 2022 it crashed down to less than half of that price -- and by late January had lost over 90% of its original value. That kind of crash creates bad publicity, creates disappointed fans, and makes people wonder why they spent money on something that may be worthless tomorrow.

Unlike Socios, FanPass does not charge for membership. Instead, you get free membership after you reach a milestone. There is no need to purchase your way into being a loyal member. Unlike Socios where members can sell their tokens, FanPass allows you to trade your rewards within our system. Rewards never expire because we want to encourage long-term relationships. And, unlike Socios, where voting happens behind closed doors, FanPass votes happen publicly so everyone knows what happened and can hold us accountable.

Many major clubs and leagues have developed their own mobile applications. Most of these applications are designed to help users find tickets, shop for merchandise, watch video content, etc. While many of these applications are very user-friendly and attract high levels of user engagement, they have one thing in common -- they create isolated data silos for each club/league. Data will likely remain locked away forever once an application goes offline or gets replaced by another app. Moreover, since loyalty programs exist independently for each club/league, a fan who supports multiple teams must use multiple different applications. Developing a large-scale, fully-featured mobile application costs around \$1-\$5 million dollars depending on complexity. Therefore, smaller clubs/leagues (esports teams) and individual athletes cannot afford to develop a similar application.

Traditional Loyalty Software

Generic loyalty software providers Salesforce Loyalty, SAP Emarsys, Bond Brand Loyalty, and others offer CRM-based loyalty stacks that are widely deployed in retail and hospitality. Some of these vendors have specific sports-industry customers. However, they are designed for industries in which the underlying loyalty record is expected to be revisable (airline miles can be devalued; hotel points expire) and therefore offer none of the permanence, scarcity, or interoperability properties that distinguish FanPass. They are formidable competition for clubs that have not yet differentiated their fan engagement strategy from their general CRM strategy, but they do not compete on the dimensions FanPass treats as central.

Newer NFT-Based Fan Engagement Startups

A category of post-2021 NFT-based startups (some now defunct, others pivoting) attempted to apply NFT technology to fan engagement during the broader NFT boom. Most struggled because they led with the NFT as the product rather than the loyalty as the product, leaving them exposed when broader NFT speculation cooled. FanPass is designed so that users don't actually need to know or think about the fact that it runs on a blockchain in order to use it. This helps keep the product stable and less affected by shifts in hype or negative sentiment around NFTs and the broader crypto space.

COMPETITIVE ADVANTAGE

To summarize FanPass's defenses against the competitive landscape, as depicted earlier, we have identified four structural advantages for FanPass: a structurally distinct value proposition from Socios, an enormous cost advantage over clubs developing their own apps; unique attributes (permanence, scarcity, ability to interoperate with other systems) that traditional loyalty-software does not provide, and a position within this space that will outlast market-cycles of NFTs.

Against Socios specifically, FanPass is built around earned membership rather than purchased tokens. A fan does not need to outlay cash to participate, and their tenure is generated by the actions a genuine supporter takes anyway. This eliminates the speculation contamination that has dogged the Chiliz ecosystem and structurally changes the regulatory posture (memberships earned through engagement are far less likely to be characterized as securities than tokens sold for investment purposes). It also broadens the addressable market substantially: the population of fans willing to spend \$20 on a token is a small fraction of the population willing to download a loyalty application and tap their phone at a stadium gate.

Against in-house club applications, FanPass offers comparable consumer functionality at a substantially lower total cost of ownership. A club paying \$10,000 per month for the FanPass Pro tier, \$120,000 per year, captures substantially more loyalty functionality than it could build in-house for that budget, and it does so without committing the engineering and product resources required to maintain a proprietary application. The four properties unique to blockchain (permanence, scarcity, transferability, interoperability) are simply unavailable to clubs operating their own applications, regardless of how much engineering investment they make.

Against traditional loyalty software, the differentiation is most cleanly stated by the four blockchain properties enumerated in the earlier section on the role of blockchain. Salesforce Loyalty cannot

offer permanence because its records are stored in a database under Salesforce's operational control. SAP Emarsys cannot offer cryptographic scarcity because its tier counts are stored as configurable database fields. None of the traditional loyalty stacks offer cross-vendor interoperability because each is optimized for the customer relationship of a single brand. FanPass's positioning is that these properties are not features to be added to traditional loyalty software, but features that require an architecturally different foundation, and that foundation is the value FanPass delivers.

Finally, against newer NFT-based fan engagement competitors, FanPass's positioning is that the blockchain is plumbing, not the product. The fan does not need to know and should not need to know that their membership is recorded on a blockchain. This positioning is harder to copy than it appears, because it requires substantial engineering investment in account abstraction, custodial wallet management, and gasless transaction sponsorship. The competitors who lead with the NFT-as-product framing have, in most cases, not made that engineering investment, and their consumer experience reflects it.

POTENTIAL RISKS

Several risk categories warrant explicit acknowledgment. Each is described together with the mitigating actions the team is prepared to take.

Slow Club Adoption

Adoption of blockchain technology by sports organizations has been a slow one. It seems like the term "blockchain" still creates some level of anxiety when discussing potential partnerships. There really isn't much to mitigate this fear, other than to use the traditional sales process approach: the sales discussion will always begin with customer engagement/retention metrics. In fact, if we discuss the blockchain, it's just going to be discussed as the platform or layer that allows for specific outcomes (such as permanent tenure, verifiable scarcity, and transferability).

The adoption rate is probably the most operational risk associated with adopting this technology and it directly correlates to how long the seed round can last.

Regulatory Drift

U.S. and global cryptocurrency regulations continue to evolve. As such, features of secondary marketplaces are being scrutinized. We have built-in a number of structural items to help us avoid these issues:

FanPass memberships are structured to provide access rights and not securities. Points cannot be redeemed for cash. We do not conduct public token sales. Our secondary marketplace includes limits on the ability to flip or transfer tokens, which significantly differentiates our marketplace from those of security exchanges.

Legal counsel reviews new feature products prior to release against current regulatory frameworks. Additionally, we sequence our international expansions into MiCA compliant countries and/or other well established regulatory regimes before entering less clear markets.



Speculation Contamination

Even with design choices intended to discourage speculation, the secondary marketplace could attract trading behavior that compromises FanPass's positioning as a loyalty platform rather than an investment vehicle. Mitigations include transfer-fee caps, anti-flipping cooldowns of at least thirty days between transfers, restrictions on listing prices that materially exceed historical averages, and a fan-first marketplace user experience that emphasizes the access utility rather than potential price appreciation. The team is prepared to disable secondary marketplace features in jurisdictions where they generate adverse outcomes.

Anchor Partner Concentration

In year one, FanPass is heavily dependent on a single anchor partnership. Loss of that partner before the case study is published would be substantially damaging. The mitigations are contractual (a minimum-term commitment with substantial mutual termination penalties) and operational (a second pilot partner under contract by month nine to diversify exposure). Beyond year one, the risk diminishes as the customer base diversifies.

Smart Contract Vulnerability

A smart contract bug exploitable in a way that drained or corrupted memberships would be catastrophic. The mitigations are the audit cadence described in the cost structure section, an upgrade pattern that allows non-state-affecting fixes, and a security insurance policy covering the contractual exposure. The team treats this risk as the single most important reason for the security-audit budget being non-negotiable, even under capital constraints.

REGULATION

FanPass has taken a very limited legal position. FanPass is presented as a loyalty rewards program (e.g., similar to airline miles or hotel points) versus a security offering, investment vehicle or custodian of investor funds. Several specific design decisions help to reinforce this legal positioning. First, fans earn points from their engagement with FanPass, as opposed to buying them. Therefore, at no point does a fan make a transaction in which he pays money for a token and expects to receive a profit, which is the central element in the Howey Test to determine if an instrument should be considered a "security" under United States law. Secondly, memberships do not offer redeemable cash; membership unlocks access to experiences and recognition as opposed to providing financial returns. Finally, no public token sales have been made.

In the United States, the prevailing regulatory environment in 2026 reflects the SEC's 2025–26 evolution toward clearer guidance on utility-token activity and crypto-adjacent loyalty programs. FanPass's posture aligns with the staff guidance issued in early 2026 (referenced in the bibliography), which distinguishes between programs whose tokens are integrated into investment products and programs whose tokens are integrated into consumer loyalty experiences. Standard SaaS contracts and conventional consumer-protection regimes apply; the additional regulatory surface area created by the on-chain component is, under this posture, minimal.

In international markets, the European Union's Markets in Crypto-Assets framework provides a substantially clearer regime for loyalty and utility-token activity than several U.S. states. Singapore, the UAE, and Switzerland likewise offer well-developed frameworks. International expansion is sequenced into these jurisdictions ahead of less-clear markets. State-by-state regulatory variation within the United States is monitored on an ongoing basis, with particular

attention to states (notably New York and California) that have historically taken broader-than-federal positions on crypto-related activity.

KEY RESOURCES, PARTNERS, AND EMPLOYEES

Key Resources

The most valuable resources of the company are the audited and battle-tested smart contract suite, the underlying intellectual property in the application and dashboard codebases, the trademark and brand identity associated with the FanPass name, and, with increasing weight as the network matures, the network effect created by each new club joining the platform. The fan-side database of memberships, while important operationally, is deliberately kept on-chain and therefore portable; FanPass does not derive its defensive moat from data lock-in.

Key Partners

The most critical partner relationship is that of an Anchor Club Partner, especially during the first and second year. Key partners outside of clubs are the L2 Blockchain Infrastructure Provider (such as Polygon Labs or Coinbase, based on which Chain you select), Smart Contract Audit Firm, Legal Counsel for Securities Review and Consumer Protection Review and Cloud Infrastructure Vendor. While a strategic partnership with an Athlete Management Firm and League Office will be beneficial for cross-club interoperability, it is not necessary to operate early. As the Cross-Club Interoperability Vision transitions from Roadmap to Product, these types of strategic partnerships will be much more relevant.

Employees and Organizational Structure

The founding team has six people, covering product, engineering, sales, and operations. As the company grows, each founder is expected to lead the function they currently coordinate. The first hires after the founding cohort are anticipated to be a head of partnerships with sports-industry experience, a senior smart contract engineer, a senior mobile engineer, and a customer success manager assigned to the anchor partner. A chief financial officer hire is expected to follow the seed round; a head of marketing follows the publication of the anchor case study and the beginning of horizontal expansion.

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